



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,285	09/25/2001	Volkmar Heuer	Q65944	6133

7590 08/30/2005  
SUGHRUE MION ZINN MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, NW  
Washington, DC 20037-3213

EXAMINER

PHAN, MAN U

ART UNIT PAPER NUMBER

2665

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/961,285

Applicant(s)

HEUER, VOLKMAR

Examiner

Man Phan

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 3-9 and 11-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/25/01, 11/17/04</u> . | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

1. This communication is in response to the application of Heuer for "Transport module for SDH/SONET" filed 09/25/2001. This application claims foreign priority based on the application 100 47 510.8 filed September 26, 2000 in Germany. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file. Claims 1-20 are pending in the application.

***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The Abstract of the disclosure is objected to because it contains the legal phraseology "said" in line 9. Correction is required.

***Claim Rejections - 35 USC ' 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2665

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 recites limitation "the transparent transmission" in line 4. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 2 recites limitation "the number of service channels" in line 3. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 10 recites limitation "the so-called C2 byte" in line 2. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 17 recites limitation "the bundle" in line 2. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 18 recites limitation "the bundle" in line 2, "the pointers" in line 3, and "the virtual service channels" in line 4. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 19 recites limitation "the bundle" in line 2, "the TU-3s" in line 3. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 20 recites limitation "the bundle" in line 2, "the TU-2s" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

11. Claims 1-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: The instant application is deemed to be directed to a nonobvious improvement over the prior art. The improvement comprises VC-Y-Xc or AU-Y-Xc transport module for SDH or SONET for forming a group of X consecutive, fixedly concatenated, virtual containers, having a PTR for the group, a POH for the group and at least X-1 individual PTR, POH and payload segments for transparent transmission of tributary bits, wherein X is a natural number greater than 1 and Y is equal to 3 or 4 or a natural number greater than 1; the transport module comprising an AU-PTR and a VC-Y-Xc-POH for the group, and also comprises, according to the number of service channels to transmitted with the group, correspondingly AU-3 or AU-4 PTR, POH and container, as specifically recited in the claims. The instant invention, in combination with the other claimed features, improves upon the Prior Art by providing a method and system for simplifying the transmission channels and their control by an SDH or SONET networks.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Heuer (US#6,842,455) is cited to show the conversion of contiguous concatenation of virtual concatenation in a synchronous digital communication network.

The Heuer (US#6,236,660) is cited to show the method for transmitting data packets and network element for carrying out the method.

The Brady et al. (US#6,891,862) is cited to show the multiplex hierarchy for high capacity transport systems.

The Turban (US#6,700,900) is cited to show the transport of concatenated containers in a synchronous information transmission network.

The Pospischil et al. (US#5,267,239) is cited to show the cross-connect method for STM-1 signals of the synchronous digital multiplex hierarchy.

The Fukasawa (US#6,094,737) is cited to show the path test signal generator and checker for use in a digital transmission system using a higher order virtual container VC-4 Xc in STM-N frames.

The Furuta (US#5,600,648) is cited to show the SDH transmission system.

The Colombo et al. (US#2001/0004358) is cited to show the method and device for converting an STM-1 signal into a sub STM-1 signal and vice versa in radio transmission.

The Nam et al. (US#6,081,535) is cited to show the STM-16 network node interface in an ATM switch and the fault diagnosing method thereof.

14. This application is in condition for allowance except for the following formal matters as indicated in paragraphs 2-6 above.

Prosecution on the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Art Unit: 2665

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

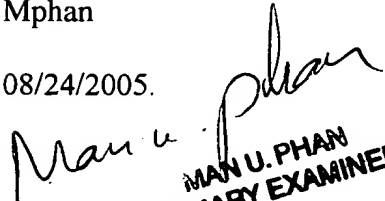
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

08/24/2005.

  
MAN U. PHAN  
PRIMARY EXAMINER

***DETAILED ACTION***

1. This communication is in response to the application of Heuer for "Transport module for SDH/SONET" filed 09/25/2001. This application claims foreign priority based on the application 100 47 510.8 filed September 26, 2000 in Germany. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file. Claims 1-20 are pending in the application.

***Claim Rejections - 35 USC ' 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 1 recites limitation "the transparent transmission" in line 4. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 2 recites limitation "the number of service channels" in line 3. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 10 recites limitation "the so-called C2 byte" in line 2. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 17 recites limitation "the bundle" in line 2. There is insufficient antecedent basis for this limitation in the claim.



Art Unit: 2665

7. Claim 18 recites limitation "the bundle" in line 2, "the pointers" in line 3, and "the virtual service channels" in line 4. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 19 recites limitation "the bundle" in line 2, "the TU-3s" in line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 20 recites limitation "the bundle" in line 2, "the TU-2s" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

10. Claims 1-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The instant application is deemed to be directed to a nonobvious improvement over the prior art. The improvement comprises VC-Y-Xc or AU-Y-Xc transport module for SDH or SONET for forming a group of X consecutive, fixedly concatenated, virtual containers, having a PTR for the group, a POH for the group and at least X-1 individual PTR, POH and payload segments for transparent transmission of tributary bits, wherein X is a natural number greater than 1 and Y is equal to 3 or 4 or a natural number greater than 1; the transport module comprising an AU-PTR and a VC-Y-Xc-POH for the group, and also comprises, according to the number of service channels to transmitted with the group, correspondingly AU-3 or AU-4 PTR, POH and container,

Art. Unit: 2665

as specifically recited in the claims. The instant invention, in combination with the other claimed features, improves upon the Prior Art by providing a method and system for simplifying the transmission channels and their control by an SDH or SONET networks.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Heuer (US#6,842,455) is cited to show the conversion of contiguous concatenation of virtual concatenation in a synchronous digital communication network.

The Heuer (US#6,236,660) is cited to show the method for transmitting data packets and network element for carrying out the method.

The Brady et al. (US#6,891,862) is cited to show the multiplex hierarchy for high capacity transport systems.

The Turban (US#6,700,900) is cited to show the transport of concatenated containers in a synchronous information transmission network.

The Pospischil et al. (US#5,267,239) is cited to show the cross-connect method for STM-1 signals of the synchronous digital multiplex hierarchy.

Art Unit: 2665

The Fukasawa (US#6,094,737) is cited to show the path test signal generator and checker for use in a digital transmission system using a higher order virtual container VC-4 Xc in STM-N frames.

The Furuta (US#5,600,648) is cited to show the SDH transmission system.

The Colombo et al. (US#2001/0004358) is cited to show the method and device for converting an STM-1 signal into a sub STM-1 signal and vice versa in radio transmission.

The Nam et al. (US#6,081,535) is cited to show the STM-16 network node interface in an ATM switch and the fault diagnosing method thereof.

13. This application is in condition for allowance except for the following formal matters as indicated in paragraphs 2-6 above.

Prosecution on the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

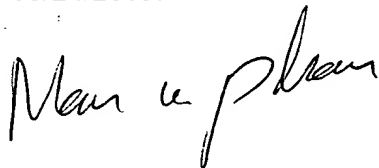
Art Unit: 2665

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

08/24/2005.



**MAN U. PHAN  
PRIMARY EXAMINER**